Holy Cross RC Primary School

Design Technology Policy

Signed_____ **[Headteacher]** **Date** September 2025

Signed_____ **[Chair of Governors]** **Date** September 2025

Next Review Date: September 2028

Introduction

This is a statement of the aims, principles and strategies for the teaching and learning of Design and Technology at Holy Cross RC Primary School.

The importance of Design Technology

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that serve a particular purpose within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as Mathematics, DT, Engineering, Computing and Art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present Design and Technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.
(The National Curriculum 2014)

1. Intent

Design and Technology (DT) is a key subject that encourages children to develop their creativity, problem-solving skills, and understanding of the world around them. Our Design Technology curriculum aims to inspire children to design and make products that solve real-life problems, drawing on skills from other areas of learning, such as mathematics, science, and art. Through practical, hands-on experiences, we aim to develop their ability to innovate, experiment, and refine their ideas.

2. Aims of Design and Technology:

Our intent for Design and Technology is to:

- Encourage creativity and innovation.
- Develop practical skills through making and creating.
- Teach children to approach problem-solving with resilience and critical thinking.
- Provide opportunities for children to apply knowledge from other subjects to real-world contexts.
- Promote understanding of the world around them and the impact of technology on society.
- Help children become independent learners who can reflect on and evaluate their own work.

3. Curriculum Overview:

Design Technology in our school follows the **National Curriculum** for Design and Technology, which is structured around the following areas:

- **Design**: Children learn how to design products that solve specific problems, considering factors such as function, aesthetics, and sustainability.

- **Make**: Children apply their design ideas by making functional products, using a variety of materials and tools safely.
- **Evaluate**: Children critically evaluate their own and others' products, considering how well they meet the design brief and identifying areas for improvement.
- **Technical Knowledge**: Children learn about the materials, tools, and processes involved in design and technology, understanding how they work in practice.

Aims

All children will be given the opportunity to:

•Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world

•Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users

•Critique, evaluate and test their ideas and products and the work of others.

•Understand and apply the principles of nutrition and learn how to cook.

Implementation

The D&T curriculum is structured to progress through a clear sequence of topics that build upon each other, with a focus on both theoretical understanding and practical application.

- **Core Areas**: The curriculum t covers areas such as design, making, evaluating, and technical knowledge (materials, mechanisms, electronics, etc.). These are embedded in projects that offer real-world relevance.
- **Delivery**: It will be delivered through a combination of:
    - **Project-Based Learning**: Hands-on design challenges that enable pupils to explore and apply their skills.
    - **Thematic Units**: Units that tie together various aspects of D&T with an overarching theme (e.g., sustainability, engineering, or product design).
    - **Collaborative Learning**: Encouraging group work to foster teamwork and communication skills.

Sequencing is essential to ensure that pupils progressively build on skills and concepts from previous years.

- **Developmental Approach**: Start with simple concepts, such as identifying and using basic materials, and gradually move to more complex tasks, like working with electronics or CAD tools.
- **Spiraling**: Revisit core skills in increasing complexity throughout the key stages. For instance, early years might focus on creating models, while later years introduce more technical aspects such as CAD, programming, or advanced material properties.

- **Cross-curricular links**: The curriculum can also link to science, mathematics, and art, ensuring that D&T supports the learning in other subjects and provides real-world applications of those subjects.

Timetabling ensures that students have sufficient time to engage with D&T projects while not overwhelming them with other subjects. Tp achieve this DT will be taught across 3 terms, with art being taught across the other 3 terms.

- **Dedicated D&T Sessions**: Ensure that there are enough hours dedicated to D&T throughout the academic year, with sessions long enough to cover design, making, and evaluation.
- **Flexible Blocks**: Allow time for extended project work, particularly for larger tasks that might span several weeks.
- **Integration with Other Subjects**: Consider cross-curricular links, where D&T can support and integrate with other subjects, ensuring it complements the wider curriculum without competing for time.

Teachers create a positive attitude to DT learning within their classrooms and reinforce an expectation that all pupils are capable of achieving high standards in DT. Our whole school approach to the teaching and learning of DT involves the following;

•Within our enquiry-based approach to the topic we will have an overarching question and through the study of DT it will enable children to answer this question at the end of each term.

•Each lesson starts with its own individual learning question to discuss and answer at the end of each lesson.

- Across each Key stage (KS1, LKS2, UKS2), pupils will get the opportunity to learn about cooking and nutrition, designing/making structures, textile skills and exploring mechanisms. In addition in UKS2 pupils will learn about digital and electronic uses of Design Technology.
- •DT and Art share time and share skills that complement each other. Please see the DT and Art overview (appendix 1) to see how DT has been mapped out.
- •DT skills has been mapped out across the year to ensure progression between year groups and to show skills progression throughout the academic year.

Teaching and Learning Key Stage 1

DT in Key Stage 1 will be taught as part of the enquiry-based curriculum, with links to other subjects. KS1 children will be taught **Design:** to design functional and attractive products to appeal not only to themselves, but also to other identified users.

•**Make:** to select and use a range of tools and materials.

•**Evaluate:** to evaluate their own designs against the design criteria and to evaluate existing products.

•**Technical Knowledge:** to build structures, exploring how they can be made stronger, stiffer and more stable and explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

•**Cooking and nutrition:** to understand where food comes from and the basic principles of a healthy and varied diet. To design and prepare dishes based on this knowledge.

Key Stage 2

It is intended that work in Key Stage2 will build on, and develop the skills learned in Key Stage 1. Children will be taught the skills and knowledge needed to successfully design and make and evaluate their work.

•**Design:** to carry out research of existing products. To develop design criteria in order to produce a product which is fit for purpose and aimed at a specific group of people.

•**Make**: to select and use a range of tools and materials, taking into account their product's functional and aesthetic qualities.

•**Evaluate:** to evaluate existing products, their own work and the work of others in order to improve their design. To have an understanding of how designers and their products have helped to shape the world.

•**Technical Knowledge:** to apply their understanding of how to strengthen, stiffen and reinforce more complex structures, understand and use mechanical systems in their products, understand and use electrical systems in their products and apply their understanding of computing to program, monitor and control their products.

•**Cooking and nutrition:** to have an understanding of the seasonal nature of foods, and where and how it is produced. To understand what it means to have a healthy diet. To cook and prepare a range of predominantly savoury foods using a range of techniques.

Some cooking and nutrition objectives are cross curricular, either covered in DT, Science or PSHE

Impact

We will assess the impact of the D&T curriculum by tracking the following:

- **Formative Assessment**:
    - Ongoing observations during D&T lessons to assess understanding and progress.
    - Peer and self-assessments, where students evaluate their own work and the work of their peers to develop critical thinking skills.
    - Regular questioning and quizzes to assess students' retention of key knowledge, such as materials properties, safety guidelines, and the design cycle.

- **Summative Assessment**:
    - **Final Product Evaluation**: At the end of each project, students' work will be assessed based on the finished product as well as the design process. This includes evaluating creativity, functionality, quality of workmanship, and alignment with the design brief.
    - **Design Portfolio**: Students will maintain a portfolio where they document their process through sketches, notes, reflections, and evaluations, allowing teachers to assess their understanding of design thinking and the iterative process.
- **Student Reflections**: After completing projects, students will be encouraged to reflect on their learning journey. These reflections will help gauge their understanding of the process, their ability to identify areas for improvement, and their level of engagement with the tasks.

B. Tracking Progress Over Time

- **Longitudinal Tracking**: Students' progression in D&T will be tracked over the course of their primary school years. This will involve documenting their ability to apply new skills, expand their design knowledge, and improve their product outcomes.
- **Curriculum Mapping**: We will use curriculum maps to ensure that students build progressively on their skills and knowledge across the years. This mapping will also help ensure that we are meeting the national curriculum expectations at each key stage.

C. Stakeholder Feedback

- **Student Feedback**: Regular student surveys and feedback sessions will be used to understand their experience of D&T, what they find engaging, and where they may need more support or challenge.
- **Teacher Feedback**: Teachers will provide feedback through review meetings to discuss student progress, successes, and areas for improvement in both the curriculum content and teaching methods

Inclusion

All learning opportunities will respond to an individual child's needs. A flexible approach will allow for those that who are working below the expected ability of the class and for those that require SEND support. Children who are deemed to be achieving beyond the class standard will be set suitable challenges through effective differentiation.

Hygiene, Health and Safety

Because children may be using tools and materials that could possibly present a hazard if used incorrectly, children will be taught to use the correct methods and will be encouraged to recognise the risks involved. Teachers will promote these in order to ensure the health and safety of their pupils. Children will also be taught the necessity of looking after equipment, by using it correctly and keeping it clean and tidy.

Resources

The Design and Technology Subject Leader is responsible for discussing resource needs with teachers. Teachers must plan carefully considering materials and tools required and must resource these themselves. If they need anything they must contact the subject leader and either they or the Schools business manager will order what is required.

Planning

Planning for DT is via Kapow which each teacher has access to. Teachers are to watch guidance videos before lessons to ensure that they understand the structure and content of the lesson.

Assessment and Recording

Assessing a child's performance is a continuous process carried out over the year and our assessing methods include the following as appropriate:-

1) Looking at a child's recorded work i.e. model, photographs, written work.
2) Individual discussion.
3) Listening to the children's ideas as they discuss between themselves.
4) Group discussions in both planning and reporting back sessions.
5) Observing the children's skills in Design and Technology.
6) Record the progress that children make by assessing the children's work against the learning objectives for their lessons. At the end of a unit of work, teachers make a judgement against the Key Learning Skills.
7) Children's work is to be recorded in floor books and Art books.

Monitoring and Reporting

The Design and Technology Subject Leader will be responsible for the monitoring and evaluation of Design and Technology planning, teaching and work throughout the school and reviewing this policy.

The Design and Technology Subject Leader will carry out termly monitoring which may include:

- Interviewing children to discover their perceptions of the subject.
- Work/planning sampling and scrutiny to ensure coverage and progression throughout the school,
- A climate walk to check the regularity and impact of the displays for the subject

The Design and Technology Subject Leader will feed back to staff findings from monitoring and advise them on good practice/areas for development.

The Design and Technology Subject Lead will run yearly staff meetings where the focus will be on teaching of DT. Throughout the year the DT Leader will also be available to support staff with teaching of DT and signpost staff to additional support. The DT Lead will support new staff in teaching of DT,

Showing where information/equipment is stored, highlighting school expectations and ensuring that DT is taught in line with the policy.

Role of the Governors

Governors are linked to a curriculum area in which they have a particular interest. During their visits to the school they may focus on that part of the curriculum.